News Release

Reach for the Sky Program (Nearly) Goes to Outer Space; Balloon launch on Wednesday, June 9, 2010, preparations begin at 8 a.m.

By ltollefs on Monday, June 7, 2010

Fifty 4th through 8th grade students from the summer's "Reach for the Sky" Science and Math Academy on the White Earth Indian Reservation will go where few have gone before, without space suits and years of training. They will launch science experiments to the edge of outer space ("near-space" - the upper reaches of the atmosphere, above 80,000 ft) with 30 or more experiments that the students will build, to test science theories and to apply hands-on science and math to their world. On-board cameras will document the view from so high in the atmosphere that the sky is black even in the daytime, and the curve of the Earth is visible.

The Reach for the Sky program will be launching experimental packages on two large helium-filled weather balloons early on Wednesday morning, June 9, 2010, from somewhere near the Circle of Life School (exact launch location is weather dependent and will be selected by Tuesday afternoon). Preparations will begin at 8 a.m. on Wednesday.

The two balloons will carry 8 student-built miniature spacecraft, with about 5 science sensors plus a camera in each one, as well as tracking radios. The students will work in teams on Monday and Tuesday to build their flying spacecraft laboratories and outfit them with sensors and cameras. The data they collect will be sent down by radio to computers on the ground, or downloaded once the payloads are retrieved.

Working with university students from the U of MN's High Altitude Balloon Team, the students will use the data to address questions that they set out to answer earlier in the week when they built their experiments. "What does the landscape look like from that height?" and "Are we really facing global climate change?" and "How does the sun's radiation change as we go up?" and "How does the temperature change with the changes in atmospheric pressure?" are just some of the questions students may be trying to answer. The balloons will have GPS units on them for tracking and will be recovered after the flight by the University's High Altitude Balloon team, directed by Professor James Flaten from the Minnesota Space Grant Consortium.

The Reach for the Sky project is in its 3rd year where culturally relevant science has been used to study various aspect of physics of flight, engineering, renewable energy, wind energy, human powered machines, and more. It is sponsored with the University of Minnesota's College of Education and Human Development and the College of Extension, by a grant from the National Science Foundation ITEST division, and by the Minnesota Space Grant Consortium through the U of MN's Institute of Technology.

Contact Stephan Carlson at 651-283-7261 or Deb Zak at 218-686-6141 with additional questions.

The White Earth Academy of Math and Science, celebrating its twelfthanniversary in 2010, is an innovative summer program that providesopportunities for students and teachers to learn science and math using acurriculum that is relevant to the Ojibwe culture and leading toimproved academic performance. The students will be visiting the Crookston campus of the University of Minnesota on Monday and Tuesday, June 28-29.

News Categories

Events

Department - Math, Science and Technology

2900 University Ave., Crookston, MN 56716
800-862-6466 | 218-281-6510 | umcinfo@umn.edu